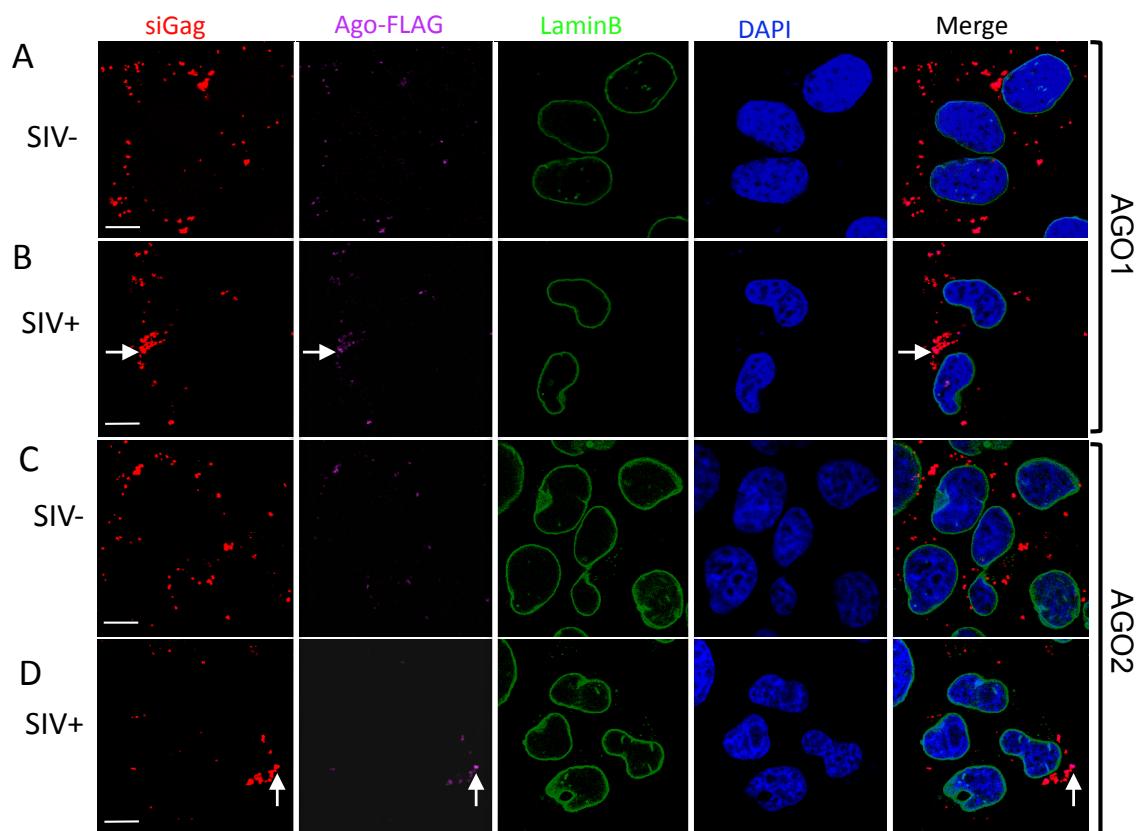
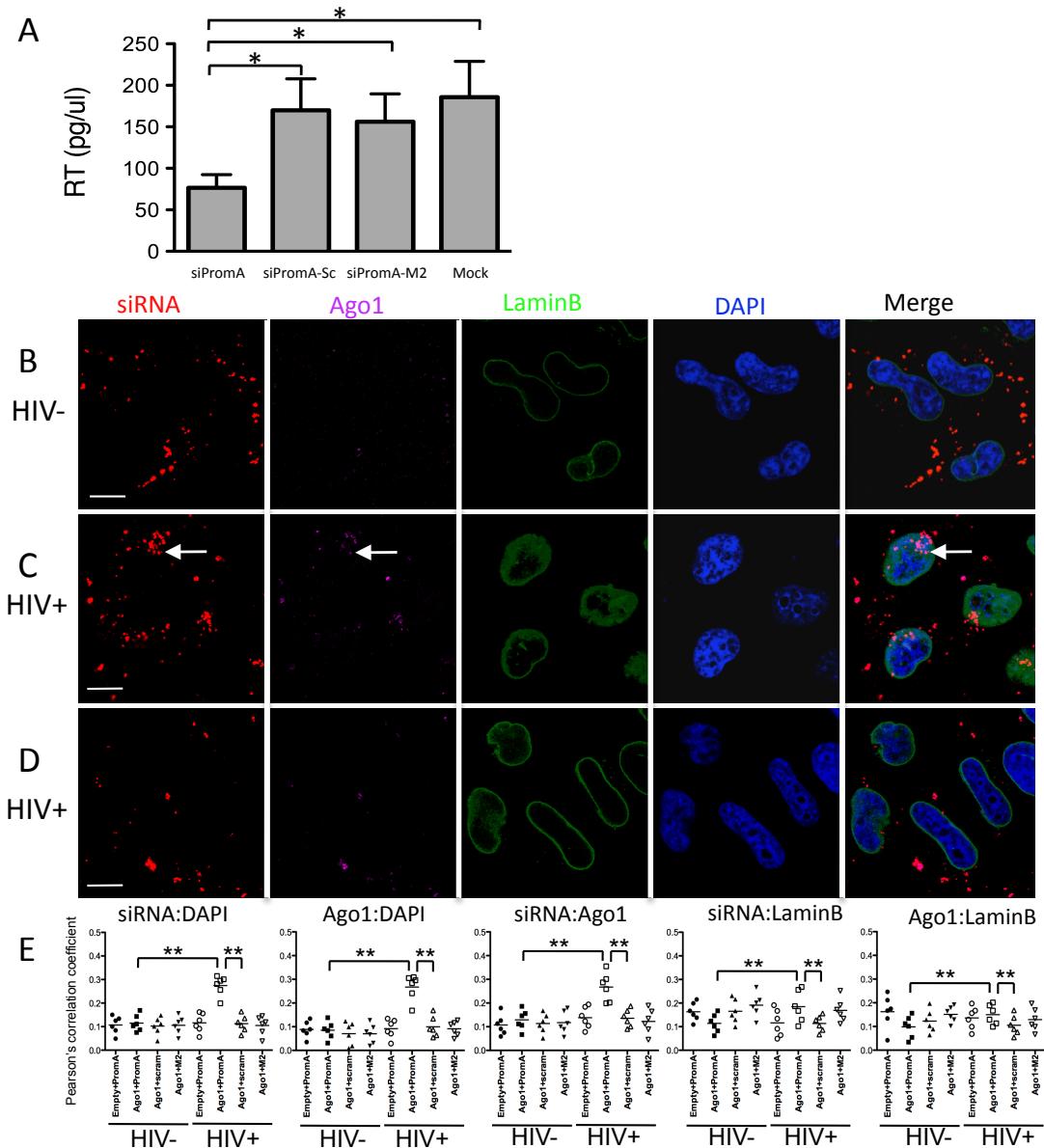


## Supplementary Figure S1



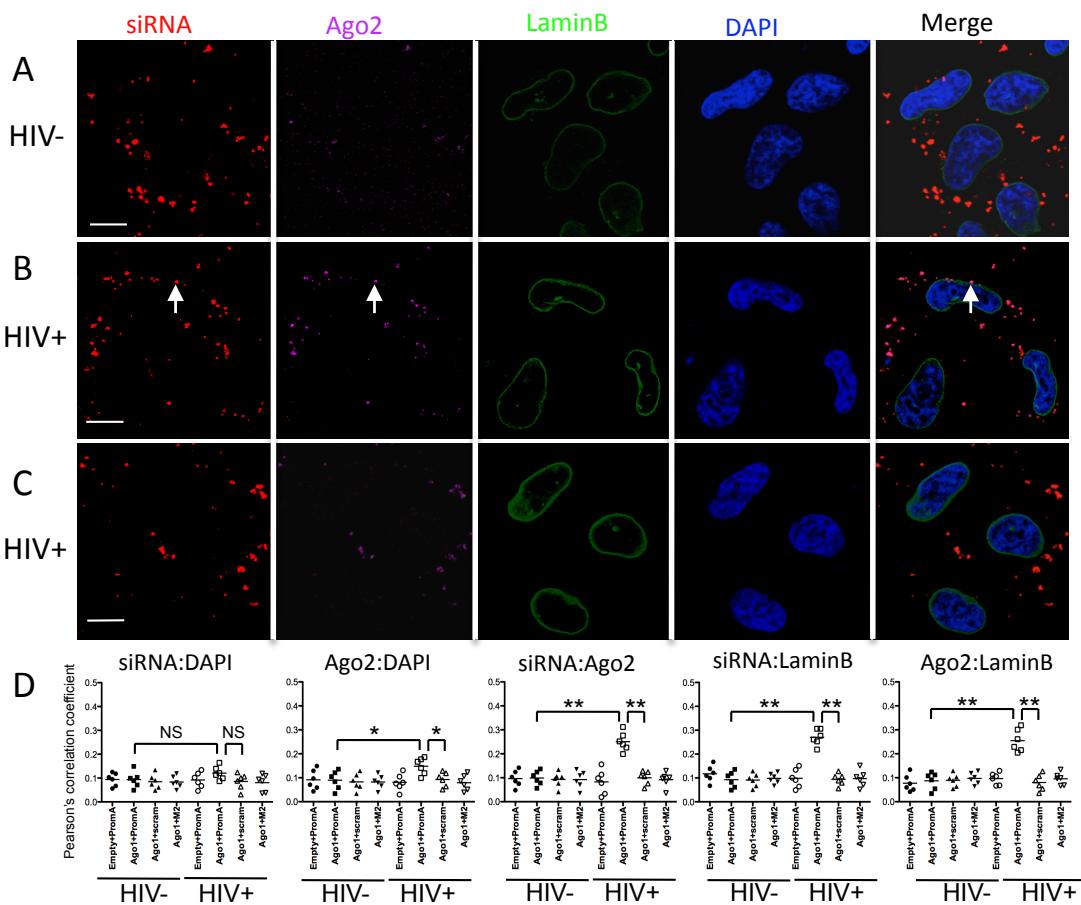
**Supplementary Figure S1.** Immunofluorescent analysis of Gag-targeted siRNA and Ago1 or Ago2 in MAGIC-5 cells. **(A)** Mock-infected cells co-transfected with Ago1 and siGag. **(B)** SIV-infected cells co-transfected with Ago1 and siGag. **(C)** Mock-infected cells co-transfected with Ago2 and siGag. **(D)** SIV-infected cells co-transfected with Ago2 and siGag. siGag labeled with AF555 shows red fluorescence, FLAG-tagged epitope representing Ago is labeled with AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate cytoplasmic localization in both mock- and SIV-infected cells. Magnification x63, scale bars indicate 5  $\mu$ m. Images are representative of three experiments.

## Supplementary Figure S2



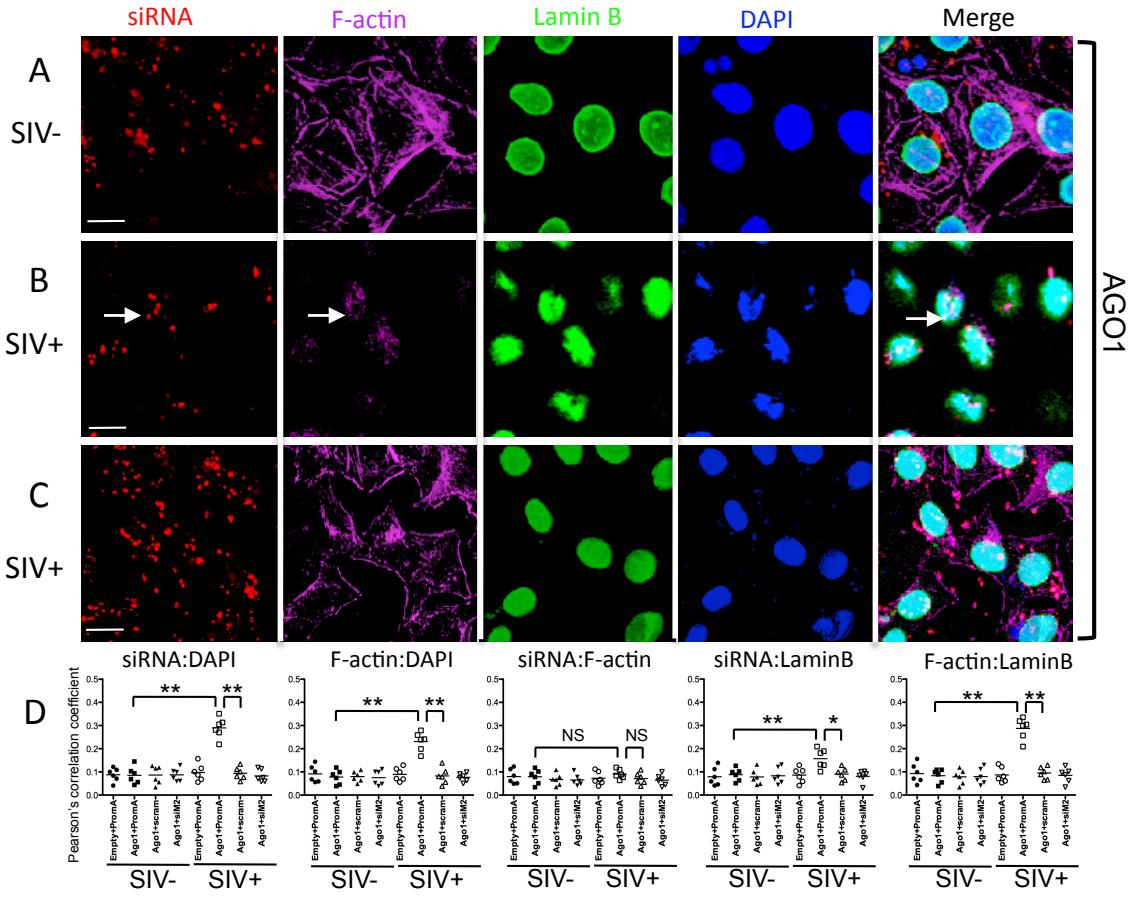
**Supplementary Figure S2. Immunofluorescence analysis and inhibition of virus replication by siRNA targeting the promoter region of HIV-1<sub>LAV</sub> in HeLa cells.** **(A)** Viral reverse transcriptase activity in culture supernatant, measured 5 days after infection of HeLa T4+ cells and transfection with FLAG-tagged Ago1 and HIV specific siRNA; siPromA and specificity controls; siPromA-Sc and siPromA-M2 or Lipofectamine2000 alone (mock) \* p = <0.02. **(B)** Mock-infected cells co-transfected with Ago1 and siPromA. **(C)** HIV<sub>LAV</sub>-infected cells co-transfected with Ago1 and siPromA. **(D)** HIV<sub>LAV</sub>-infected cells co-transfected with Ago1 and scrambled siRNA. siRNAs (siPromA and siPromA-Sc) labeled with AF555 show red fluorescence, FLAG-tagged epitope representing Ago1 is labeled with AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localization in HIV<sub>LAV</sub>-infected cells. Magnification x63, bars represent 5 μm. Images shown are representative from one experiment. **(E)** Pearson's correlation coefficient values are shown for HIV<sub>LAV</sub>-infected cells co-transfected with Ago1 and siPromA. \*\* p = <0.002.

## Supplementary Figure S3



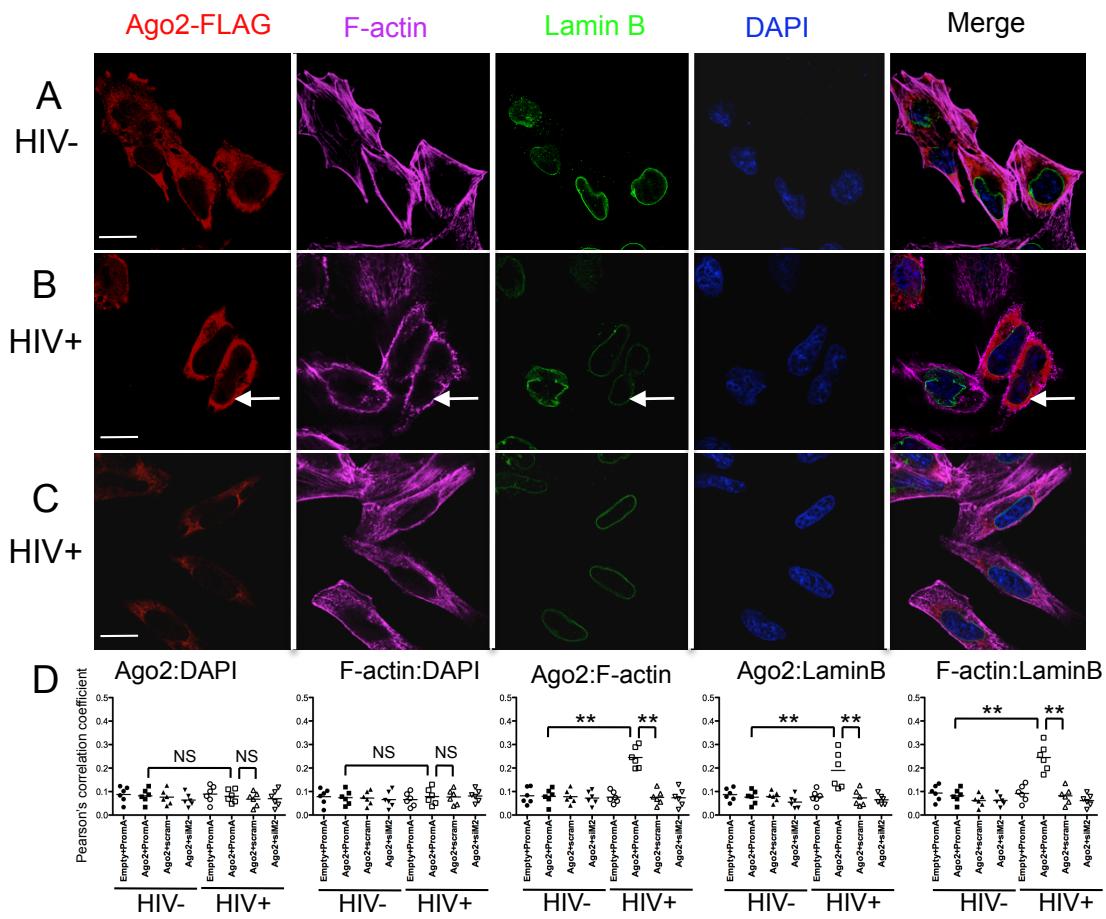
**Supplementary Figure S3.** Immunofluorescent analysis of HIV-1 promoter-targeted siRNA and Ago2 in HeLa cells. **(A)** Mock-infected cells co-transfected with Ago2 and siPromA. **(B)** HIV<sub>LAV</sub>-infected cells co-transfected with Ago2 and siPromA. **(C)** HIV<sub>LAV</sub>-infected cells co-transfected with Ago2 and scrambled siRNA. siRNAs (siPromA and siPromA-Sc) labeled with AF555 show red fluorescence, FLAG-tagged epitope representing Ago2 is labeled with AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localization in HIV<sub>LAV</sub>-infected cells. Magnification x63, bars represent 5 μm. Images are representative of three experiments. **(D)** Pearson's correlation coefficient values are shown HIV<sub>LAV</sub>-infected cells co-transfected with Ago2 and siPromA. NS (not significant). \* p = <0.04. \*\* p = <0.002.

## Supplementary Figure S4



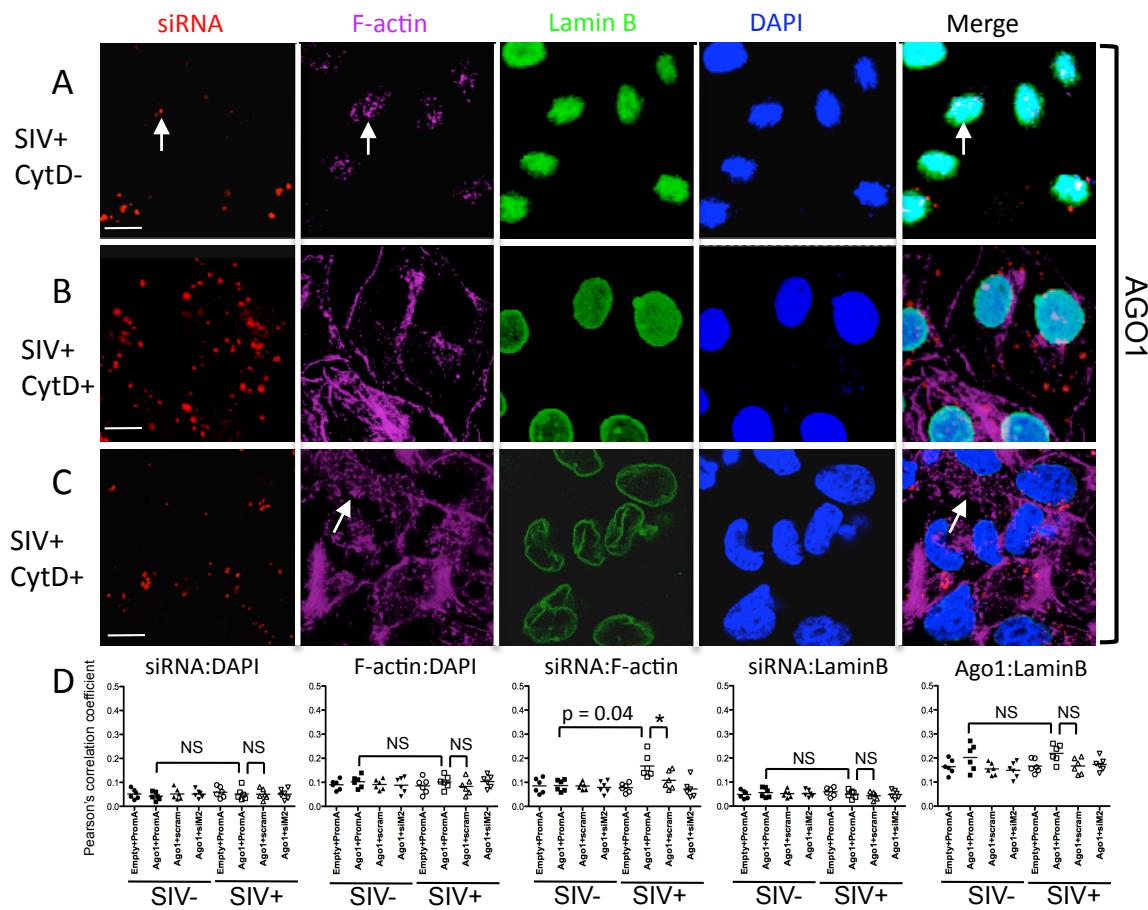
**Supplementary Figure S4.** Immunofluorescent analysis of SIV promoter-targeted siRNA and F-actin in MAGIC-5 cells. **(A)** Mock-infected cells co-transfected with Ago1 and si2A. **(B)** SIV-infected cells co-transfected with Ago1 and si2A. **(C)** SIV-infected cells co-transfected with Ago1 and scrambled siRNA. siRNAs (si2A and si2A-Sc) labeled with AF555 show red fluorescence, F-actin is labeled with phalloidin-AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localization in SIV-infected cells. Magnification x63, bars represent 5  $\mu$ m. Images are representative of three experiments. **(D)** Pearson's correlation coefficient values are shown for SIV-infected cells co-transfected with Ago1 and si2A. NS (not significant). \* p = 0.02. \*\* p = <0.002.

## Supplementary Figure S5



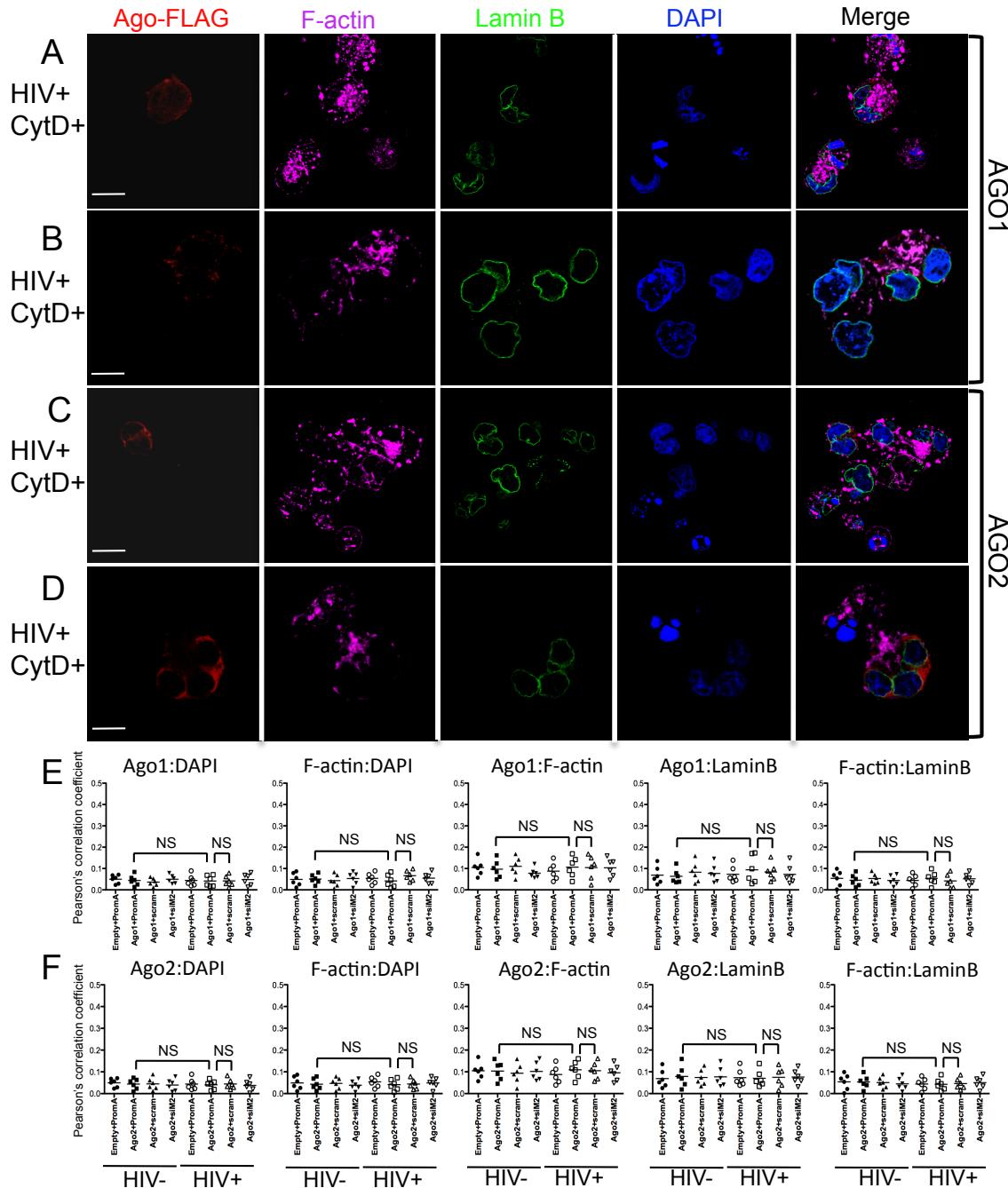
**Supplementary Figure S5.** Immunofluorescent analysis of FLAG-tagged Ago2 and F-actin in HIV-1<sub>SF162</sub> infected HeLa cells. **(A)** Mock-infected cells co-transfected with Ago2 and unlabeled siPromA. **(B)** HIV<sub>SF162</sub>-infected cells co-transfected with Ago2 and unlabeled siPromA. **(C)** HIV<sub>SF162</sub>-infected cells co-transfected with Ago2 and unlabeled siPromA. FLAG-tagged Ago2 labeled with AF555 show red fluorescence, F-actin is labeled with phalloidin-AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localized F-actin staining in panel b and cytoplasmic F-actin staining in panel c. Magnification x63, bars represent 5 μm. Images are representative of three experiments. **(D)** Pearson's correlation coefficient values are shown for HIV<sub>SF162</sub>-infected cells co-transfected with Ago2 and unlabeled siPromA. \*\* p = 0.01.

## Supplementary Figure S6



**Supplementary Figure S6.** Immunofluorescent analysis of SIV promoter-targeted siRNA and F-actin in cytochalasin D-treated MAGIC-5 cells. **(A)** SIV-infected cells co-transfected with Ago1 and si2A, not pre-treated with cytochalasin D (CytD). **(B)** SIV-infected cells co-transfected with Ago1 and si2A, pre-treated with cytochalasin D. **(C)** SIV-infected cells co-transfected with Ago1 and si2A-Sc, pre-treated with cytochalasinD. siRNAs labeled with AF555 show red fluorescence, F-actin is labeled with phalloidin-AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localized F-actin staining in panel b and cytoplasmic F-actin staining in panel c. Magnification x63, bars represent 5  $\mu$ m. Images are representative of three experiments. **(D)** Pearson's correlation coefficient values are shown for SIV-infected cells pre-treated with cytochalasinD and co-transfected with Ago1 and si2A. \* p = 0.01.

## Supplemental Figure S7



**Supplementary Figure S7.** Immunofluorescent analysis of FLAG-tagged Ago1 or Ago2 and F-actin in cytochalasin D-treated HIV-1<sub>SF162</sub> infected HeLa cells. **(A)** HIV-infected cells co-transfected with FLAG-tagged Ago1 and unlabeled siPromA, pre-treated with cytochalasin D (CytD). **(B)** HIV<sub>SF162</sub>-infected cells co-transfected with FLAG-tagged Ago1 and unlabeled siPromA-Sc, pre-treated with cytochalsin D. **(C)** HIV<sub>SF162</sub>-infected cells pre-treated with cytochalasinD and co-transfected with FLAG-tagged Ago2 and unlabeled siPromA. **(D)** HIV<sub>SF162</sub>-infected cells co-transfected with FLAG-tagged Ago2 and unlabeled siPromA-Sc, pre-treated with cytochalsin D. FLAG-tagged Ago1 or Ago2 labeled with AF555 show red fluorescence, F-actin is labeled with phalloidin-AF647 (pseudocolored magenta), Lamin B labeled with AF488 (green fluorescence) indicates nuclear envelope and DAPI nuclear stain is pseudocolored blue. Arrows indicate nuclear localized F-actin staining in panel b and cytoplasmic F-actin staining in panel c. Magnification x63, bars represent 5  $\mu$ m. Images are representative of three experiments. **(E-F)** Pearson's correlation coefficient values are shown for HIV<sub>SF162</sub>-infected cells pre-treated with cytochalasinD and co-transfected with Ago1 or Ago2 and unlabeled siPromA. NS, not significant.